Tree Solutions Inc
Consulting Arborists

Project No. TS - 8305

Preliminary Arborist Report

To:	Hultquist Homes c/o Greg Rumsey
Site:	755 5th Ave Northwest, Issaquah, WA, 98027
Re:	Tree Inventory and Assessment
Date:	September 16, 2022
Project Arborist:	Connor McDermott, ISA Certified Arborist #PN-8704A ISA Qualified Tree Risk Assessor
Reviewed By:	Tyler Bunton, ISA Certified Arborist #PN-8715A ISA Qualified Tree Risk Assessor
Referenced Documents:	Issaquah 3 Town Homes, Site Plan A0.0 (Medici Architects 09/07/2022) Topographic Survey (Informed Land Survey 01/07/2019)
Attached:	Table of Trees Tree Site Map

Summary

I inventoried and assessed 16 significant trees on-site. Site trees are identified numerically and are tagged with aluminum tree tags.

Of the trees assessed, four met the landmark tree criteria outlined in the Issaquah Municipal Code (IMC) 18.12.030.

There are three trees off-site with overhanging canopies. The diameter of these trees was estimated from the site or adjacent public areas such as the right-of-way (ROW). Off-site trees are identified alphabetically.

There are 387.4 diameter inches on-site, of which 118 diameter inches are proposed for retention or 31 percent retained. This is in compliance with the 25 percent tree retention rate set in the Central Issaquah Plan Development Standards (CIP) 10.13.A.1.

According to the CIP 10.10.A, the minimum tree density for this site is four significant trees within the Developable Site Area.

Assignment and Scope of Work

This report outlines the site inspection by Connor McDermott, of Tree Solutions Inc., on February 8, 2022. I was asked to visit the site and assess the health and structural conditions of the trees on-site. I

was asked to produce an Arborist Report documenting my findings and management recommendations. Greg Rumsey, of Hultquist Homes, requested these services for planning purposes.

Observations

Site

The 4,807 square foot site fronts 5th Ave NW in Issaquah and is located in a MUR multifamily zone. A basketball court and a concrete walkway currently exist on-site.

The site is located within the Central Issaquah Plan Area and is regulated by CIP Chapter 10.

The site was forested with native conifers and limited ground cover. I observed English holly (*Ilex aquifolium*), a weed of concern in King County which should be managed when possible.

Proposed Plans

The most recent plans, Site Plan (Medici Architects 05/17/2022) proposes the construction of two multilevel units with attached garages.

Trees

Tree species on-site included Douglas-fir (*Pseudotsuga menziesii*), and black locust (*Robinia pseudoacacia*) trees.

Four trees (428, 429, 431, 432) on-site are considered landmark according to IMC 18.20.030.

Several of the black locust trees exhibited signs of decay at the base or at the codominant unions. One of the trees, tree 432 was observed to be in poor condition with decay observed on one of the trunks and is in a state of decline.

Offsite Trees

All off-site Tree species are Douglas-fir trees in good health and structural condition.

I have attached an annotated site plan to serve as the site map and a table of trees that has detailed information about each tree.

Discussion—Construction Impacts

This report is preliminary as I have not reviewed finalized design or construction plans for the site. Tree Solutions Inc. should assess the full plan set including architectural, civil, grading, utility, and landscaping in order to properly assess the impacts to retained trees.

Tree Retention

Based on the current plans, site trees 419, 420, 421, 422, 423, 424, and 426 are planned for retention.

According to CIP 10.13 retained trees must be protected within the critical root zone (CRZ), defined as the larger of either 1-foot per 1-inch DSH or 15 feet around the trunk of the retained trees, and no disturbances of the soil within the tree protection area. Based on the existing plans the proposed development would intrude into the CRZ of trees 419, 421, 423, 424, and C.

CIP 10.13.B allows for the modification of the tree retention standards to allow for the reasonable use of the property through an administrative adjustment of standards (AAS). For this project an AAS will be required to excavate for the structures within the CRZ of trees 419, 421, 423, 424, and C to develop the property.

I believe if the alternative construction methods outlined below can be employed within the CRZ of these five trees, then the proposed structures will not negatively impact the structural stability of retained trees during excavation. Additionally, since these trees will have disturbance on one side of their driplines and with no disturbance on three other sides they have a high likelihood of surviving construction and remaining in good health.

Below are the AAS approval criteria as outlined in IMC 18.12.170 (D) and how this proposal meets the criteria with regards to the five trees within clearing limits:

Administrative Adjustment Standard- Trees 419, 421, 423, 424, and C
1. The adjustment(s) will be equal to, or superior in, fulfilling the intent and purpose of the landscape requirements; and

Allowing grading to occur as proposed within the driplines of these five trees will allow for an additional five existing trees to be safely preserved on the outer edges of the proposed development.

2. The adjustment(s) does not negatively impact the adjacent property owners; and

Retention of these five trees will provide additional consistent landscaping between the area proposed for development and the adjacent wooded properties.

3. The landscape adjustment(s) shall provide consistency with the intent, scale and character of the zoning district involved; and

The landscape adjustment will allow for the preservation of additional existing trees on-site and meet the requirements of the city and district code.

4. The intent and purpose of the required screening and/or buffering of uses or specific areas (for example, dumpsters and parking areas) are not jeopardized.

The retention of existing trees will not jeopardize required screening and/or buffering of uses or specific areas.

Tree Protection
Five of the retained trees (Trees 419, 421, 423, 424, and C) would be impacted by construction and require special protection measures. Further information regarding tree protection specifications can be found in Appendix B.

Tree protection measures must be used within the CRZ of all impacted trees to reduce compaction, limit impacts from excavation, and retain roots within the subgrade. These measures include but are not limited to construction monitoring by the project arborist, soil protection, mulching, temporary irrigation, alternative excavation methods, and tree protection fencing. Alternative excavation measures

include pneumatic air excavation, hand digging, hydro excavation, or use of flat front buckets with the arborist spotting for roots.

Tree protection fencing should be placed at the edges of tree CRZ's as identified in the attached table of trees and may be relocated only when required work within that area is occurring in coordination with the project arborist. No demolition, trenching, excavation, or fill activities may occur within the tree protection zone of retained trees without coordination from the project arborist.

During construction, soil protection and installation of mulch and irrigation will be critical to maintain the health condition of the retained trees. Coarse woody mulch must be applied within the tree protection zone (TPZ) to a depth of four to six inches prior to demolition. Soil exposed during demolition of existing structures or hardscapes must be immediately covered with coarse woody mulch. If demolition occurs in the dry season, between April and September, provide trees with supplemental water at a minimum once per month and continue throughout the duration of the project during the dry season.

Tree protection measures are necessary for the continued health and viability of the trees. Trees that have not been protected and are subject to clearing, root disturbance, and soil compaction throughout a construction project tend to decline and die either during or in the years following the completion of the construction project. Unplanned construction impacts can elevate the risk of windthrow.

Installation of house Foundations- 419, 421, 423, 424, and C
According to the plans, foundations for the proposed structures would be set 13 feet from tree 419, 17 feet from tree 421, 13 feet from tree 423, 21 feet from tree 424, and 17 feet from tree C.

The International Society of Arboriculture (ISA) best management practices (BMP)[1] state that the limits of disturbance can be reduced to 8 times the DSH of a high-tolerance, mature tree and maintain structural stability. The impacts in the plans do not exceed these limits of disturbance for any retained tree.

To limit the required excavation and over excavation, I recommend the use of pier and beam foundations within CRZs and the use of elevated walkways to further limit ground disturbances. The use of alternative excavation such as hydro excavation or hand digging must be employed to excavate for the foundations within the CRZ of retained trees. The project arborist should be present for the excavation to assess root impacts and cut all roots encountered over one inch cleanly.

Tree Retention Calculations
According to the CIP 10.13.A.1, 25 percent of the diameter inches must be retained on the site, and the minimum tree density for this site is four significant trees within the Developable Site Area (CIP 10.10.A).

There are a total of 387.4 diameter inches on-site, of which 107 diameter inches are currently proposed for retention, or 31 percent retained.

[1] ISA Best Management Practices: Managing Trees During Construction" (Fite & Smiley 2016)

Recommendations

- Have Tree Solutions Inc. assess the full plan set including architectural, civil, grading, utility, and landscaping in order to properly assess the impacts to roots of retained trees.
- Add CRZs of trees to plans per Tree Solutions Inc. Table of Trees.
- Submit an AAS to the City for approval to construct within the CRZ of retained trees with use of alternative construction methods.
- Use alternative foundation systems within the CRZ of Trees 419, 421, 423, 424, and C.
- Tree protection consisting of chain-link fencing should be installed at the CRZ of all retained trees. Trees growing in a group should be protected at the edge of their shared TPZ. General tree protection specifications can be found below in Appendix B.
- All pruning should be conducted by an International Society of Arboriculture (ISA) certified arborist conforming to current ANSI A300 standards.
- Remove all invasive species prior to construction.
- Obtain all necessary permits and approval from the city prior to commencement of site work.

Respectfully Submitted,

Connor McDermott,
Consulting Arborist

Appendix A **Photographs**

Photo 1. Site viewed from the street to the north.

Photo 2. Base of trees 421 through 426 viewed from the basketball court to the west.

Appendix B **Tree Protection Specifications**

The following is a list of protection measures that must be employed before, during and after construction to ensure the long-term viability of retained trees.

1. **Project Arborist:** The project arborists shall at minimum have an International Society of Arboriculture (ISA) Certification and ISA Tree Risk Assessment Qualification.
2. **Tree Protection Zone (TPZ):** The tree protection zone is established by the critical root zone. The critical root zone is defined as 1-foot per 1-inch DSH or within 15 feet of the trunk of retained trees, whichever is greater. No disturbances of the soil are allowed within the tree protection area. (CIP 10.13). Any variance to grade within the critical root zone must be approved by the City.
3. **Tree Protection Fencing:** Tree protection shall consist of 6-foot chain-link fencing installed at the edge of the TPZ. Two-inch diameter steel fence posts shall be pounded at least 2-feet into the ground spaced no greater than 10-feet apart.
    a. Where trees are being retained as a group the fencing shall encompass the entire area including all landscape beds or lawn areas associated with the grove.
    b. Where work is planned within the tree protection fencing, install fencing at edge of TPZ and move to limits of disturbance at the time that the work within the TPZ is planned to occur. This ensures that work within the TPZ is completed to specification.
    c. Where trees are protected at the edge of the project boundary, construction limits fencing shall be incorporated as the boundary of tree protection fencing.
4. **Tree Protection Signage:** Tree protection signage shall be affixed to fencing every 20 feet. Signage shall be fluorescent, at least 2’ x 2’ in size. Signage will note: “Warning Tree Protection Zone – Do Not Enter: Entry into the tree protection area is prohibited unless authorized by the project manager.” Signage shall include the contact information for the project manager and instructions for gaining access to the area.
5. **Filter / Silt Fencing:** Filter / silt fencing within the TPZ of retained trees shall be installed in a manner that does not sever roots. Install so that filter / silt fencing sits on the ground and is weighed in place by sandbags or gravel. Do not trench to insert filter / silt fencing into the ground.
6. **Duff/Mulch:** Apply 6-inches of arborist wood chip mulch or hog fuel over bare soil within the TPZ to prevent compaction and evaporation. Do not use composted or bark mulch products. Keep mulch 1 foot away from the base of trees and 6 inches from retained understory vegetation. Retain and protect as much of the existing duff and understory vegetation as possible. TPZ shall be free of invasive weeds to facilitate mulch application.
7. **Soil Protection:** No parking, foot traffic, materials storage, or dumping (including excavated soils) are allowed within the TPZ. Heavy machinery shall remain outside of the TPZ. Acceptable methods of soil protection include 4 to 6 inches of wood chip mulch. Retain existing paved surfaces within or at the edge of the TPZ for as long as possible.
8. **Soil Remediation:** Soil compacted within the TPZ of retained trees shall be remediated using pneumatic air excavation according to a specification produced by the project arborist.
9. **Canopy Protection**: Where fencing is installed at the limits of disturbance within the TPZ, canopy management (pruning or tying back) shall be conducted to ensure that vehicular traffic does not damage canopy parts. Exhaust from machinery shall be located five feet outside the dripline of retained trees. No exhaust shall come in contact with foliage for prolonged periods of time.
10. **Excavation:** Excavation done at the edge of the TPZ shall use alternative methods such as pneumatic air excavation or hand digging. If heavy machinery is used, use flat front buckets with the project arborist or laborer spotting for roots. When roots are encountered, stop excavation and cleanly sever roots.

11. **Fill:** Limit fill to 1 foot of uncompacted well-draining soil, within the TPZ of retained trees. Fill must be kept at least 1 foot from the trunks of trees.
12. **Root Pruning:** Limit root pruning to the extent possible. All roots shall be pruned with a sharp saw making clean cuts. Do not fracture or break roots with excavation equipment.
13. **Root Moisture:** Root cuts and exposed roots shall be immediately covered with soil, mulch, or clear polyethylene sheeting and kept moist. Water to maintain moist condition until the area is back filled. Do not allow exposed roots to dry out before replacing permanent back fill.
14. **Tree Removal:** All trees to be removed that are located within the TPZ of retained trees shall not be ripped, pulled, or pushed over. The tree should be cut to the base and the stump either left or ground out. A flat front bucket can also be used to sever roots around all sides of the stump, or the roots can be exposed using hydro or air excavation and then cut before removing the stump.
15. **Pruning:** Pruning required for construction and safety clearance shall be done with a pruning specification provided by the project arborist in accordance with American National Standards Institute ANSI-A300 2017 Standard Practices for Pruning. Pruning shall be conducted or monitored by an arborist with an ISA Certification.
16. **Irrigation:** Retained trees with soil disturbance within the TPZ will require supplemental water from June through September. Acceptable methods of irrigation include drip, sprinkler, or watering truck. Trees shall be watered three times per month during this time.
17. **Plan Updates:** All plan updates or field modification that result in impacts within the TPZ or change the retained status of trees shall be reviewed by the senior project manager and project arborist prior to conducting the work.
18. **Materials:** Contractor shall have the following materials onsite and available for use during work at the edge of the TPZ:
    - Sharp and clean bypass hand pruners
    - Sharp and clean bypass loppers
    - Sharp hand-held root saw
    - Reciprocating saw with new blades
    - Shovels
    - Trowels
    - Clear polyethylene sheeting
    - Burlap
    - Water

Appendix C **Glossary**

ANSI A300: American National Standards Institute (ANSI) standards for tree care

DBH or DSH: The diameter of any tree trunk, measured at four and one-half (4.5) feet above average grade. For trees with multiple leaders at four and one-half (4.5) feet height, the d.b.h. shall be the combined cumulative total of branches greater than six (6) inches diameter at four and one-half (4.5) feet above the average grade. If a tree has been removed and only the stump remains that is below four and one-half (4.5) feet tall, the size of the tree shall be the diameter of the top of the stump (IMC 18.12.030).

Critical Root Zone: An area extending one (1) foot beyond the trunk for each inch of d.b.h. (IMC 18.12.030).

deciduous: tree or other plant that loses its leaves sometime during the year and stays leafless generally during the cold season (Lilly 2001)

evergreen: tree or plant that keeps its needles or leaves year-round; this means for more than one growing season (Lilly 2001)

ISA: International Society of Arboriculture

significant tree: A tree at least six (6) inches or greater at DSH. or an alder or cottonwood tree eight (8) inches or greater at d.b.h. Any trees that are listed on the King County complete weed list shall not be considered significant. The complete King County weed list includes Class A noxious weeds, Class B noxious weeds, Class C noxious weeds, nonregulated noxious weeds or weeds of concern lists as adopted by King County noxious weed list, in accordance with Chapter 17.10 RCW and Chapter 16-750 WAC. (IMC 18.12.030)

Visual Tree Assessment (VTA): method of evaluating structural defects and stability in trees by noting the pattern of growth (Mattheck & Breloer 1994)

Landmark Tree: A tree greater than thirty (30) inches d.b.h. (IMC 18.12.030).

Appendix D **References**

Accredited Standards Committee A300 (ASC 300). ANSI A300 (Part 1) Tree, Shrub, and Other Woody Plant Management – Standard Practices (Pruning). Londonderry: Tree Care Industry Association, 2017.

Council of Tree and Landscape Appraisers, Guide for Plant Appraisal, 10th Edition Second Printing. Atlanta, GA: The International Society of Arboriculture (ISA), 2019.

Issaquah Municipal Code 18.12. Landscaping and Tree Preservation.

Central Issaquah Plan Development Standards Chapter 10.0- 10.18. Landscape

Lilly, Sharon. Arborists' Certification Study Guide. Champaign, IL: The International Society of Arboriculture, 2001.

Mattheck, Claus and Helge Breloer, The Body Language of Trees.: A Handbook for Failure Analysis. London: HMSO, 1994.

Appendix E **Assumptions & Limiting Conditions**

1 Consultant assumes that the site and its use do not violate, and is in compliance with, all applicable codes, ordinances, statutes or regulations.

2 The consultant may provide a report or recommendation based on published municipal regulations. The consultant assumes that the municipal regulations published on the date of the report are current municipal regulations and assumes no obligation related to unpublished city regulation information.

3 Any report by the consultant and any values expressed therein represent the opinion of the consultant, and the consultant's fee is in no way contingent upon the reporting of a specific value, a stipulated result, the occurrence of a subsequent event, or upon any finding to be reported.

4 All photographs included in this report were taken by Tree Solutions, Inc. during the documented site visit, unless otherwise noted. Sketches, drawings and photographs (included in, and attached to, this report) are intended as visual aids and are not necessarily to scale. They should not be construed as engineering drawings, architectural reports or surveys. The reproduction of any information generated by architects, engineers or other consultants and any sketches, drawings or photographs is for the express purpose of coordination and ease of reference only. Inclusion of such information on any drawings or other documents does not constitute a representation by the consultant as to the sufficiency or accuracy of the information.

5 Unless otherwise agreed, (1) information contained in any report by consultant covers only the items examined and reflects the condition of those items at the time of inspection; and (2) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, climbing, or coring.

6 These findings are based on the observations and opinions of the authoring arborist, and do not provide guarantees regarding the future performance, health, vigor, structural stability or safety of the plants described and assessed.

7 Measurements are subject to typical margins of error, considering the oval or asymmetrical cross-section of most trunks and canopies.

8 Tree Solutions Inc. did not review any reports or perform any tests related to the soil located on the subject property unless outlined in the scope of services. Tree Solutions Inc. staff are not and do not claim to be soils experts. An independent inventory and evaluation of the site's soil should be obtained by a qualified professional if an additional understanding of the site's characteristics is needed to make an informed decision.

9 Our assessments are made in conformity with acceptable evaluation/diagnostic reporting techniques and procedures, as recommended by the International Society of Arboriculture.

Appendix F **Methods**

Measuring

I measured the diameter of each tree at 48 inches above grade, diameter at standard height (DSH). If a tree had multiple stems, I measured each stem individually at standard height and determined a single-stem equivalent diameter by adding the diameters of each stem.

Tagging

I tagged each tree with a circular aluminum tag at eye level. I assigned each tree a numerical identifier on our map and in our tree table, corresponding to this tree tag. I used alphabetical identifiers for trees off-site.

Evaluating

I evaluated tree health and structure utilizing visual tree assessment (VTA) methods. The basis behind VTA is the identification of symptoms, which the tree produces in reaction to a weak spot or area of mechanical stress. A tree reacts to mechanical and physiological stresses by growing more vigorously to re-enforce weak areas, while depriving less stressed parts. An understanding of the uniform stress allows the arborist to make informed judgments about the condition of a tree.

Rating

When rating tree health, I took into consideration crown indicators such as foliar density, size, color, stem and shoot extensions. When rating tree structure, we evaluated the tree for form and structural defects, including past damage and decay. Tree Solutions Inc. has adapted our ratings based on the Purdue University Extension formula values for health condition (*Purdue University Extension bulletin FNR-473-W - Tree Appraisal*). These values are a general representation used to assist arborists in assigning ratings.

Excellent - Perfect specimen with excellent form and vigor, well-balanced crown. Normal to exceeding shoot length on new growth. Leaf size and color normal. Trunk is sound and solid. Root zone undisturbed. No apparent pest problems. Long safe useful life expectancy for the species.

Good - Imperfect canopy density in few parts of the tree, up to 10% of the canopy. Normal to less than ¾ typical growth rate of shoots and minor deficiency in typical leaf development. Few pest issues or damage, and if they exist, they are controllable, or tree is reacting appropriately. Normal branch and stem development with healthy growth. Safe useful life expectancy typical for the species.

Fair - Crown decline and dieback up to 30% of the canopy. Leaf color is somewhat chlorotic/necrotic with smaller leaves and “off” coloration. Shoot extensions indicate some stunting and stressed growing conditions. Stress cone crop clearly visible. Obvious signs of pest problems contributing to lesser condition, control might be possible. Some decay areas found in main stem and branches. Below average safe useful life expectancy

Poor - Lacking full crown, more than 50% decline and dieback, especially affecting larger branches. Stunting of shoots is obvious with little evidence of growth on smaller stems. Leaf size and color reveals overall stress in the plant. Insect or disease infestation may be severe and uncontrollable. Extensive decay or hollows in branches and trunk. Short safe useful life expectancy.

Tree Solutions Inc
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Table of Trees

755 5th Ave NW,
Issaquah, WA, 98027

Arborist: C McDermott
Date of Inventory: 02/08/2022
Table Prepared: 09/16/2022

DSH (Diameter at Standard Height) is measured 4.5 feet above grade, or as specified in the Guide for Plant Appraisal, 10th Edition , published by the Council of Tree and Landscape Appraisers.
DSH for multi-stem trees are noted as a single stem equivalent, which is calculated by adding the diameters of all stems at 4.5 feet as defined in IMC 18.12.030 "Diameter/diameter-breast-height (d.b.h.) or (dbh)".
Letters are used to identify trees on neighboring property with overhanging canopies.
Dripline is measured from the center of the tree to the outermost extent of the canopy.

Tree ID	Scientific Name	Common Name	DSH (in)	DSH Multistem	Health Condition	Structural Condition	Dripline Radius (ft)	Critical Root Zone (CRZ) (ft)	Landmark	Proposed Action	Viability	Notes
419	*Pseudotsuga menziesii*	*Douglas-fir*	17.7		Good	Good	14.7	18		Retain	Viable	Previously tagged 3
420	*Pseudotsuga menziesii*	*Douglas-fir*	20.5		Good	Good	18.9	21		Retain	Viable	Basketball court 14.5 feet to west; surface roots; previously tagged 4
421	*Pseudotsuga menziesii*	*Douglas-fir*	16.6		Good	Good	16.7	17		Retain	Viable	Shared canopy; forest grown
422	*Pseudotsuga menziesii*	*Douglas-fir*	14.6		Good	Good	15.6	15		Retain	Viable	Phototropic lean to southwest
423	*Pseudotsuga menziesii*	*Douglas-fir*	8.4		Good	Good	11.4	15		Retain	Viable	Previously tagged 265; slightly suppressed
424	*Pseudotsuga menziesii*	*Douglas-fir*	24.5		Good	Good	21.0	25		Remove	Viable	Surface roots
425	*Pseudotsuga menziesii*	*Douglas-fir*	13.6		Good	Good	20.1	14		Retain	Viable	-
426	*Pseudotsuga menziesii*	*Douglas-fir*	16.3		Good	Fair	15.7	16		Retain	Viable	Topped for power line clearance at 25 feet; phototropic lean to north
427	*Pseudotsuga menziesii*	*Douglas-fir*	16.7		Good	Good	16.7	17		Remove	Viable	Pruned for line clearance to north
428	*Robinia pseudoacacia*	*Black locust*	61.2	21.8, 19, 20.4	Good	Fair	21.6	61	Yes	Remove	Viable	Codominant at 3 feet; pruned for powerlines to north; union can be probed 1 feet with canopy soil accumulated in union; likely decay below union; deadwood in canopy; if retained add dynamic cable in triangular position between three trunks
429	*Robinia pseudoacacia*	*Black locust*	47.8	24.9, 22.9	Good	Good	29.0	48	Yes	Remove	Viable	Codominant at .5 feet; low live-crow-ratio (LCR); grown in grove; deadwood observed; canopy previously raised
430	*Robinia pseudoacacia*	*Black locust*	21.0		Good	Fair	19.9	21		Remove	Viable	Codominant at 6 feet with crack below union and nose on south side; phototropic canopy over basketball court; court 20 feet away; some deadwood observed; canopy can be reduced; monitor for movement or cracking at union; good candidate for dynamic cable; remove holly from trunk

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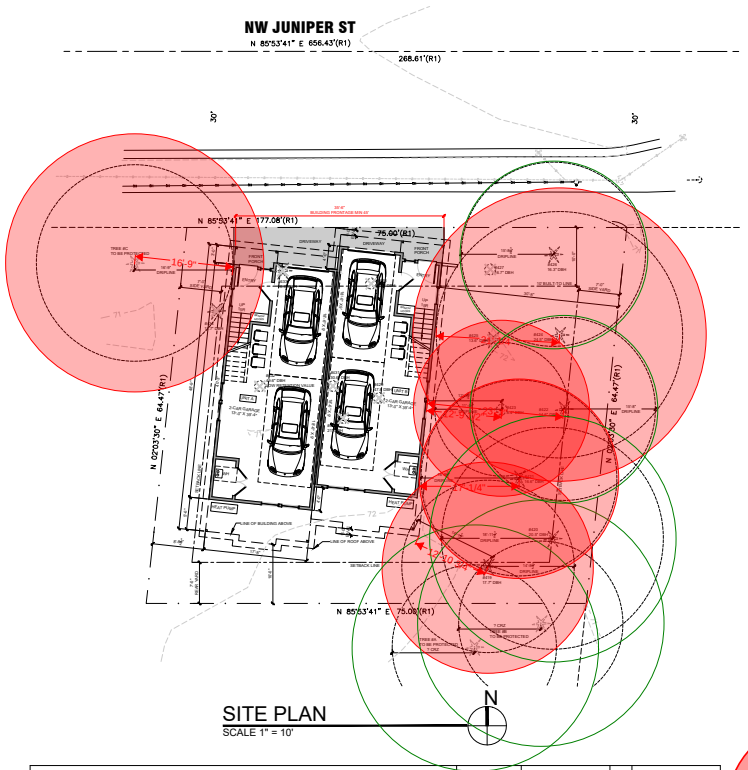
Tree ID	Scientific Name	Common Name	DSH (in)	DSH Multistem	Health Condition	Structural Condition	Dripline Radius (ft)	Critical Root Zone (CRZ) (ft)	Landmark	Proposed Action	Viability	Notes
431	*Robinia pseudoacacia*	*Black locust*	30.6		Good to Fair	Fair	39.3	31	Yes	Remove	Viable	Deadwood in canopy; low LCR; grown in grove; walkway 7 feet northwest; remove holly from base
432	*Robinia pseudoacacia*	*Black locust*	49.6	21,28.6	Fair	Fair to Poor	33.1	50	Yes	Remove	Non-viable	Codominant at 0.5 feet; tear-out on south side of trunk with response wood exhibited; heavy pruning on south stem; decay on north side of southern trunk; low retention value
433	*Pseudotsuga menziesii*	*Douglas-fir*	16.6		Good	Good	20.7	17		Remove	Viable	Pruned for powerlines; surface roots; 3.5 feet from walkway
434	*Pseudotsuga menziesii*	*Douglas-fir*	11.7		Good	Fair	13.5	15		Remove	Viable	Suppressed; kink in trunk at 35 feet; walkway 6 feet from base; previously tagged 18
A	*Pseudotsuga menziesii*	*Douglas-fir*	21.1		Good	Good	-	21		Retain	Viable	Basketball court 14 feet to west; off-site tree; share canopy with site trees; partial phototropic lean to west; previously tagged 1
B	*Pseudotsuga menziesii*	*Douglas-fir*	20.5		Good	Good	-	21		Retain	Viable	Off-site tree; shared canopy with site trees; previously tagged 569
C	*Pseudotsuga menziesii*	*Douglas-fir*	21.8		Good	Good	16.9	22		Retain	Viable	Off-site; surface roots; pruned for powerlines to north

ISSAQUAH 3 TOWNHOMES



SITE PLAN
SCALE 1" = 10'

TREE RETENTION CALCULATION			DSH "	DRIPLINE		RETAINED
EXISTING TREE #419	DOUGLAS FIR	TO RETAIN	17.7	14.7		17.7
EXISTING TREE #420	DOUGLAS FIR	TO RETAIN	20.5	18.9		20.5
EXISTING TREE #421	DOUGLAS FIR	TO RETAIN	16.6	16.7		16.6
EXISTING TREE #422	DOUGLAS FIR	TO RETAIN	14.6	15.6		14.6
EXISTING TREE #423	DOUGLAS FIR	TO RETAIN	8.4	11.4		8.4
EXISTING TREE #424	DOUGLAS FIR	TO RETAIN	24.5	21.0		24.5
EXISTING TREE #425	DOUGLAS FIR	TO BE REMOVED	13.6	20.1		
EXISTING TREE #426	DOUGLAS FIR - FAIR	TO RETAIN	16.3	15.7		16.3
EXISTING TREE #427	DOUGLAS FIR	TO BE REMOVED	16.7	16.7		
EXISTING TREE #428	BLACK LOCUST - FAIR	TO BE REMOVED	61.2	21.6		
EXISTING TREE #429	BLACK LOCUST	TO BE REMOVED	47.8	29.0		
EXISTING TREE #430	BLACK LOCUST - FAIR	TO BE REMOVED	21	19.9		
EXISTING TREE #431	BLACK LOCUST - FAIR	TO BE REMOVED	30.6	39.3		
EXISTING TREE #432	BLACK LOCUST - POOR	TO BE REMOVED	49.6			
EXISTING TREE #433	DOUGLAS FIR	TO BE REMOVED	16.6	20.7		
EXISTING TREE #434	DOUGLAS FIR - FAIR	TO BE REMOVED	11.7	13.5		
OFF-SITE TREE #A	DOUGLAS FIR	PROTECT				
OFF-SITE TREE #B	DOUGLAS FIR	PROTECT				
OFF-SITE TREE #C	DOUGLAS FIR	PROTECT				
TOTAL DBH OF SITE			387.4	TOTAL DSH:		118.6
25% REQUIRED RETENTION			96.9	**RETAINED:**		30.6%
TREE DENSITY	**4 - MIN 4.5" - PER 5,000 SF**		**EXISTING TO REMAIN:**			7

PROJECT TEAM:

OWNER / CONTRACTOR: HULTQUIST HOMES
GREG RUMSEY
PO BOX 1987
ISSAQUAH WA 98027
(425) 242-6527
rumsey@hultquisthomes.com

ARCHITECT: MEDICI ARCHITECTS
JENNIFER KIM, AIA
11711 SE 8TH ST, SUITE 100
BELLEVUE, WA 98005
P: 425-453-9298
E: jennifer@mediciarchitects.com

CIVIL ENGINEER: D.R. STRONG
MAHER A. JOUDI, P.E.
620 7TH AVENUE
KIRKLAND, WA 98033
P: (425) 827-3063
E: maher.joudi@drstrong.com

GEOTECHNICAL ENGINEER: EARTH SOLUTIONS NW, LLC
KYLER KELLY
15365 NE 90TH STREET, STE 100
REDMOND, WA 98052
P: 425-449-4704
E: kylerk@esnw.com

LANDSCAPE: JGM LANDSCAPE ARCHITECTS
CRAIG LEWIS
12610 NE 104TH ST
KIRKLAND WA 98033
P: (425) 454-5723
E: jgm@jgm-inc.com

SURVEYOR: INFORMED LAND SURVEY
EVAN M WAHLSTROM
PO BOX 5137
TACOMA, WA 98415
P: 253-627-2070
E: admin@i-landsurvey.com

ARBORIST: TREE SOLUTIONS, INC. INC
CONNOR MCDERMOTT
2940 WESTLAKE AVE. N #200
SEATTLE, WA 98109
P: 206-528-4670
E: connor@treesolutions.net

Indicates the critical root zone of retained tree is impacted

Indicates the critical root zone of a retained tree is not impacted

Tree Solutions Inc.
206-528-4670

Tree Site Map
Arborist: C McDermott
September 16, 2022

Tree inventory took place on February 8, 2022 and included all significant trees on site. I also assessed trees with overhanging canopies surrounding the property.

Dripline measurements are listed in the table of trees produced by Tree Solutions Inc. The critical root zones should be added to all pertinent plans.

Lettered numbers indicate they overhang the property but are outside the property line.

PROJECT DESCRIPTION:

BUILD TWO (2) 4-STORY SINGLE FAMILY ATTACHED TOWNHOMES
STREET ACCESS

ZONING & CODE INFORMATION

JURISDICTION:	CITY OF ISSAQUAH
ZONE:	MUR/CENTRAL ISSAQUAH
PARCEL ASSESSOR'S #:	884390-0500
LOT SIZE:	4,807 SF (0.11 ac)
USE:	SINGLE FAMILY (2 ATTACHED)
SETBACKS	
REQUIRED PER CIDDS TABLE 4.4:	BUILD-TO-LINE - 0' - 10'
	SIDE YARDS - 7'-0"
	REAR YARD -7'-0"
PROPOSED:	BUILD-TO -LINE - 1'-0"
	SIDE YARDS - 8'-8"
	REAR YARD - 10'-0"
F.A.R.	
PER CIDDS TABLE 4.4:	1.25
GROSS FLOOR AREA ALLOWED:	6,008 SF
GROSS FLOOR AREA PROPOSED:	4,445 SF
MAX HEIGHT	
ALLOWED *PER CIDDS TABLE 4.4:*	40' ABOVE AEG,
PROPOSED:	40' at midpoint of gable roof
PARKING	
VEHICULAR REQUIRED MIN.	1 per unit
PROPOSED:	2 in private garage
BICYCLE:	N/A FOR SINGLE FAMILY ATTACHED
BUILDING FRONTAGE	
MINIMUM REQUIRED:	45' (*PER CIDDS 11.3.G - 60%)*
PROPOSED:	35'
COMMUNITY SPACES	
REQUIRED INDIVIDUAL PRIVATE:	48 SF per unit (*PER CIDDS 7.3.A*)
PROPOSED:	117 SF (9'x13' roof deck per unit)

CODE INFORMATION

ALL MATERIALS, WORKMANSHIP, DESIGN AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE FOLLOWING APPLICABLE CODES USED IN THIS DESIGN FOR CITY OF ISSAQUAH

2018 INTERNATIONAL RESIDENTIAL CODE
2018 INTERNATIONAL FIRE CODE
2018 INTERNATIONAL MECHANICAL CODE
2018 INTERNATIONAL FUEL GAS CODE
2018 UNIFORM PLUMBING CODE
2018 WASHINGTON STATE ENERGY CODE

- CENTRAL ISSAQUAH DESIGN AND DEVELOPMENT STANDARDS (CIDDS)
- ISSAQUAH MUNICIPAL CODE

BUILDING CLASSIFICATION

A. OCCUPANCY CLASSIFICATION: MULTI FAMILY RESIDENCE
B. AUTOMATIC SPRINKLERS PROVIDED _X_YES __NO
SPRINKLER SYSTEM TO BE A FLOW THRU SYSTEM
SEPARATE FIRE PERMITS REQUIRED FOR EACH
NFPA 13D SYSTEM INSTALLED IN EACH UNIT

PROJECT LOCATION

VICINITY MAP
NTS

N

PROJECT LOCATION

QT. SECT. MAP
NTS

N

ARCHITECTURAL SHEET INDEX

CIVIL SHEET INDEX

SURVEY

TOPOGRAPHIC SURVEY INCLUDED

MEDICI ARCHITECTS
ARCHITECTURE I PROGRAMMING I
ACCESSIBLE DESIGN I INTERIOR DESIGN
www.mediciarchitects.com

11711 SE 8TH STREET, SUITE 100
BELLEVUE, WA 98005
TEL: (425) 453-9298

REGISTRATION:

6926 REGISTERED ARCHITECT
EMILY D. BUCHWALTER
STATE OF WASHINGTON

INTAKE: DATE:

REVISIONS: DATE:
1.
2.
3.
4.
5.

PROJECT / CLIENT:

ISSAQUAH DUPLEX

HULTQUIST HOMES
GREG RUMSEY
PO BOX 1987, ISSAQUAH WA 98027
(907) 242-6527
rumsey@hultquisthomes.com

JOB ADDRESS:

ISSAQUAH, WA 98027
PARCEL # 884390-0500

DRAWING NAME:

COVER SHEET
SITE PLAN

ISSUE: DATE:

Drawn By: JK, SJ
Checked By: JK
Owner Approval:

PHASE:

SITE PLANNING

PROJECT No.: **2022 103**
DATE: **09-07-2022**

SCALE: 1:1

A0.0